INTRODUCTION

Language (re)vitalization
What characterizes a sensible policy?

Bengt-Arne Wickström
Andrássy-Universität, Budapest

Noémi Nagy
Nemzeti Közszolgálati Egyetem (Ludovika University of Public Service), Budapest

Anneliese Rieger-Roschitz
Andrássy-Universität, Budapest

Balázs Vizi
Nemzeti Közszolgálati Egyetem (Ludovika University of Public Service), Budapest
Társadalomtudományi Kutatóközpont, Kisebbségkutató Intézet
(Centre for Social Sciences, Institute for Minority Studies), Budapest

Many small languages are in danger of extinction. How to stop and reverse this process is an important topic in the sociolinguistic literature. In addition to the revitalization of languages, there are also some examples of vitalizing (bringing to use) "new" languages, for example the introduction of *Ivrit* (modern Hebrew) in Palestine/Israel. Generally speaking, for a language to be used, no matter which language, the users must find it attractive and useful. At least two factors are important here: the value attributed to the language by its users as a means of communication and as a carrier of culture and identity. It is assumed that these factors can be influenced by language-policy measures.
The impact of various measures on the vitality of the language is an empirical matter. However, one can draw some general conclusions regarding which measures are sensible in order to vitalize or revitalize which languages when the financial resources of the policy-maker are limited. In this introductory text to the theme issue, we apply the methodology of cost-effectiveness analysis to discuss the connection between the types of the policy measures employed and characteristics of the language

communities addressed, such as size, social status, and residential patterns. The cost-effectiveness ratio of street signs in a minority language might, for instance, be higher for a community spread over a whole country than for a community of the same size concentrated in one geographically limited jurisdiction. On the other hand, a decision to publish the texts of laws and decrees of a country in a minority language will have approximately the same effect for both types of minorities.
The articles in this special issue of LPLP address and evaluate different types of policy measures for different linguistic minorities and illustrate important aspects of the main questions in this paper.

Keywords: vitality, (re)vitalizaton, policy measures, planning, communication, identity, culture, status, cost-effectiveness analysis, cost structure, minority language, sociolinguistic characteristics of minority

1   Introduction

How to stop and reverse the process of language death has been an important topic in the sociolinguistic literature at least since Fishman (1991). His *Graded intergenerational disruption scale* (GIDS) presented in that book became an important tool for evaluating the "health" of threatened languages. This scale was further developed and is used, for instance, in various editions of *Ethnologue* (latest edition: Eberhard et al. 2022). In UNESCO (2011), nine different criteria are considered, the low degree of fulfillment and/or absence of which bring a threatened language closer to extinction:

1. Inter-generational language transmission

2. Absolute number of speakers

3. Proportion of speakers within the total population

4. Shifts in domains of language use

5. Response to new domains and media

6. Availability of materials for language education and literacy

7. Governmental and institutional language attitudes and policies including official status and use

8. Community members' attitudes toward their own language

9. Amount and quality of documentation

Whether a minority language is preserved or dies is seen as depending on these factors. We note that they are both linked to the individual and dependent on language

policy decisions. As Marten (2016) points out, these factors include the language loyalty of the minority speakers, the factor of dislocation (spatial, social or cultural alienation of an individual from his or her language), as well as ideological factors that revolve around whether the preservation of a minority language is desirable at all. Hinton et al. (2018) offer an up-to-date account of the current state of knowledge of language revitalization.[1]

This introductory essay aims at systematically reviewing how some aspects of language policy can impact linguistic vitality in different cases. For our purposes, we will use the terms *vitality*, *vitalize*, and *revitalize* in the following specific ways:[2]

The **Vitality** of a language is given by its presence in the linguistic landscape and in the different social spheres. It can be equated with the written and oral use by individuals in all cohorts of the language community in a given territory and in different domains.

Vitalization signifies increasing the vitality of a language, possibly from non-existence; that is, establishing a new language in a certain territory or certain domains.

Revitalization signifies returning lost vitality to a language that previously had a certain vitality in a territory or in some domains.

Changes in society occur due to changes in individual behavior, and individuals react to incentives. Such incentives are partially provided by public policy by influencing the linguistic landscape individuals face. Substantial changes in collective behavior can be assumed to occur primarily through the demographic evolution when new young cohorts enter society and older cohorts die,[3] but individuals within a cohort can also change over their life cycle. In order to study the changes in a language's vitality induced by language policy, we, hence, should look at how different policy measures – through the resulting language-related goods – change individual behavior both in the long and short run. Language-related goods may include the status of a language fueled by status-improving policy measures, such as using the language in official documents, on bank notes, or in the official names of public institutions. They can also take the form of more practical measures, such as street names in the language or the provision of outpatient

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1. On page xxi, revitalization is defined as "giving new life and vigour to a language that has been decreasing in use".

2. Compare Hinton et al.'s (2018, page 158) definition of vitality as "Language vitality addresses the healthiness of a language. Measuring language vitality can be conceptualized as a framework that uses a number of factors. It evaluates the number and ages of speakers and how often they speak on a regular basis. It includes consideration of language transmission. What's more, measuring language vitality includes evaluating the use of language in a variety of manners, such as in the home, raising children, education, public events, and government."

3. Templin & Wickström (2024) offer a recent overview of dynamic models of linguistic behavior and language vitality.

nursing in the language of the patient. Language-related goods may also operate in a very direct way, such as teaching the language at school.

In this introductory essay, we discuss some policy measures and their possible effect on human behavior, especially on the individual decision to increase the use of a certain language in various domains. We begin with three very different examples from real life and then proceed to set up a structured framework for analyzing the relationship between language policy and linguistic vitality.

1.1 *Three examples illustrating vitalization and revitalization of three languages*

We consider three examples of three very different languages that in the last century and a half have achieved a certain increase in usage (that is, in our definition, in vitality). One of them, modern Hebrew, emerged from the ancient variety, but is in many ways a new language. The second one, Esperanto, is a new creation, but, at least in its lexicon, it strongly builds on Latin and Greek roots. The third one, Basque, has a long history going back long before the dominance of the Romance languages in this border area of Northern Spain and Southwestern France. These three examples illustrate how a language can be revitalized in the form of a new, very different variety, be vitalized as an (almost) totally new language, or be revitalized in a way thet evidences continuity with a long existant language. In the three cases, the instruments used in the language policy that contributed to success and vitality to a large extent correspond to the three traditional types of language planning. In the case of Hebrew, it is status planning through a group of committed supporters of the language; in the case of Esperanto, it is corpus planning by the early influential speakers; and for Basque, it is acquisition planning by the state in addition to status planning.[4] These cases illustrate some of the methods described in this volume.

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4. It seems that acquisition and status planning are complementary activities, supporting one another. One, without the other might not bring much success. Compare the discussion in Wickström (2023b).

1.1.1   *The resurrection of Hebrew as Modern Hebrew*

The successful introduction of *Ivrit*[5] in Palestine/Israel has been described in a fascinating way by Harshav (1993). A decisive factor was the suddenly increased visibility of the language in the Tel Aviv region after the Turkish rulers attempted (and partially succeeded) to expel Jewish settlers (and other "foreigners") from the territory during World War I. Through self-selection, an over-proportional part of the strongly committed Zionists were Ivrit speakers who resisted expulsion and stayed, while many less committed Zionists were speakers of other languages and left Palestine in larger numbers. Therefore, the proportion of Ivrit speakers increased in Tel Aviv, "the first Hebrew city", and a higher proportion of individuals (but not necessarily a larger number of individuals) used the language, while more advertising and other information appeared in the language. In short, the visibility of the language increased in the linguistic landscape beyond a critical value, increasing the status of the language and making it grow in the Jewish population of Tel Aviv and the rest of the territory. This is, in our opinion, a beautiful example of the importance of language as carrier of identity. Those with the strongest commitment to the idea of a Jewish homeland were also those who most strongly supported the resurrection of Hebrew as a strong carrier of Jewish identity. In addition, what made the language grow was, in the end, the status it achieved through strong visibility. The importance of visibility in general and in the case of a small minority language is addressed in detail by **Gubitosi & Medina González in this issue.**

1.1.2   *The relative success of Esperanto*

In the case of Esperanto, the situation is very different. What Esperanto speakers have in common with early speakers of Ivrit is a strong commitment to the language. Its presence in the linguistic landscape, however, has never been high, and the community remains small. Nevertheless, in comparison to other planned languages, such as Ido or Volapük, Esperanto is a success, however slight. Authors studying the history of planned languages, like Blanke (1985), assign this relative success to the stability of the basic linguistic system codified in the *Fundamento*, standardizing the grammatical structure and basic vocabulary. The language could then freely evolve around this

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5.   In order to distinguish between the modern and classical varieties of Hebrew, both called עברית in the original, we use the term Ivrit for the modern variety. Scholars seem to be in agreement that the modern language spoken in Israel and other locations today should be regarded as a different system than the various ancient varieties, see Reshef (2013). Some scholars go as far as denying the pure Semite character of the modern language, calling it a hybrid of Semitic and Indo-European systems, see, for instance Wexler (1990)

fixed fundamental norm, providing a minimum of corpus planning. Other proposed planned language systems lacked such a fixed basis and were frequently "improved upon" by the creators or users. This suggests that a certain degree of normalization of the linguistic system in the form of corpus planning can be considered one important factor for maintaining the long-term vitality of the language. This is the topic of **Daniel's contribution in this issue**.

It would be interesting to study whether there is an optimal level of standardization. Take the case of Norwegian. There are two standard varieties of Norwegian – Bokmål (earlier Riksmål) and Nynorsk (earlier Landsmål) – the official norms of which have undergone many changes since the original codification in the 19th century. In addition to this lack of stability, the official norms, governing, among other things, teaching in schools and language use in public administration, are remarkably broad in both languages, permitting many varieties both in the dictionary and especially in the morphology of the two normalized variants of the language. It has to be considered that this lack of stability and "fuzziness" of language norms might contribute to the declining use of the minority language Nynorsk. In section 2 of her paper, **Daniel in this issue** refers to literature stressing the importance of the *rate of change* in the norm for the vitality of languages; compare also Wickström (2012) on this point.[6]

1.1.3   *The flourishing of Basque in Spain*

In some cases, implementing official status and promoting educational programs might lead to a successful revitalization. Basque in Spain in contrast to Basque in France seems to be a relevant example. As a result of status and acquisition planning Basque is increasingly used by young people in the Spanish Basque territories, making the age distribution of Basque speakers "normal", whereas in France with few supportive policy measures the age distribution is heavily biased in the direction of old-age individuals, see Cenoz (2008). The vitality of the language is considerably higher in Spain than in France. Similarly, the Occitan language group has almost totally disappeared in France, but a small community is still present in the Aran Valley in Spain. This is one of the case studies in the contribution of **Korpics in this issue**, giving some insight on the influence of the state's language policy on language vitality.

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6.   For many "natural" languages, a certain historic piece of literature or a specific author have acted as a linguistic reference for the standardization process, for instance Luther's translation of the Bible for German or the work of Dante for Italian. For an account of the standardization of different European languages, see Hüning et al. (2012).

1.2   *Vitality and language policy*

These are only three examples of (re)vitalizing small languages with very different primary factors influencing vitality. The vitalization and sustained vitality of small languages can also depend on many other factors. The fundamental assumption behind our approach to language policy is that the policymaker introduces policy measures that give rise to "goods" that influence individual behavior.

1.2.1   *Methodology: microeconomics analysis*

The background of our analysis is standard microeconomics, building on assumptions of a minimum of individual rationality, *i.e.* goal-oriented and consistent (in the sense of transitivity) behavior. The model generally builds on two different concepts: a choice set and individual preferences. The choice set is made up of several bundles of goods that are normally objectively observable and measurable. The goods can be concrete commodities, like a piece of cake, or abstract, like sunshine. Generally the amounts of goods are continuously available. The preferences are subjective and individual, simply providing rankings of the different bundles making up the choice set. That the preferences are subjective simply means that each person has his or her own ranking which as a rule is different from the rankings of other people. As an example, assume that all people live from wine and cheese. The individual choice set is then all possible bundles of wine and cheese, limited by the budget of the person (individual) and the prices of wine and cheese (the same for all), and the preferences (individual) guide the person's choice of how much wine and cheese to consume. These choices are then influenced by the prices of wine and cheese and the person's income which all limit the budget.

In the case of language-related goods coming into existence through language policy things can be different. The objectively measurable language-related goods are frequently discrete goods: a minority language is either used or not used on bank notes; there is – or there isn't – a right to receive answers from some public office in the language you use to address the public officers; etc.. The preferences, on the other hand, are in principle no different from the base model outlined in the previous paragraph. The (partially) discrete choice set, however, makes the traditional analysis of behavior building on small changes in the various parameters characterizing the choice set impossible, and much more sophisticated methods are needed.

An alternative approach is to define derived goods that are approximately continuous. Status of a language is such a derived good. Several language-related goods (possibly discrete ones) contribute to the status of a language. The good status itself, however, can come very close to being a continuous good. However, it is also a subjective

good, the status of one and the same language can be different for different people even if the same objectively measurable language-related goods determine the status. It is not uniquely objectively measurable. Fortunately, analyzing any specific person's behavior this does not matter much, and also the aggregated behavior of different individuals can easily be analyzed using traditional methods.

In other words, by redefining goods to be of the continuous type and in addition using continuous language-related goods like the number of speakers of a language, we can construct a choice set consisting of bundles of continuous goods over which individuals have normal preferences. Then also an analysis of changing behavior due to small changes in various parameters is possible. Such a traditional economics analysis – in the vein of the work by Gary Becker – in a static setting under the assumption of language-related goods being continuous variables can be found in Grin (2016).

1.2.2   *Cost-effectiveness analysis*

The planner, estimating – or knowing – the effect, on the language use by different individuals, of different policy measures, will select the combination of measures with the highest impact, given the available budget for language policy.[7]   That every public policy maker faces budget restrictions should come as no surprise.

In order to structure and analyze the problem of which policy measures are suitable for increasing the vitality of different languages and language communities, the methods of cost-effectiveness analysis are, hence, useful.   Especially the cost structure of the policy measures and the size and residence patterns of the language communities play an important role. Also the size and borders of the jurisdictions are very important. This is related to the principles of territoriality and personality. Various policy measures, such as standardizing vocabulary and grammar, using the language in official documents, giving it a legal status, or integrating it into school syllabi, can

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7.   Of course, one can very easily imagine situations in which it pays to keep the group of people mastering a language small in order to perpetuate a monopoly-similar situation, thereby increasing power and earnings. Through the use of Latin as the language of administration and fundamental literature (the *Vulgata*), the Roman Church and its priests had a monopoly on direct access to the "truth" which was preached to the general population. When the Reformation broke this monopoly, this became a contributing reason for cruel wars, partially based on different interpretations of the Christian Bible. Latin knowledge in Medieval times and later also opened up or defined some professions, whose services were in high demand; keeping the supply low, increased the remuneration. The phenomenon that an equilibrium in demand and supply of language skills strongly influence earnings is well-established in the literature, see for instance Ginsburgh & Prieto-Rodriguez (2011), Liwiński (2019), or Gazzola et al. (2018, section 2.2). Similar arguments might also apply to "secret" languages of criminal groups.

be assumed to have an impact on the vitality of the language. The question is which policy is most effective for which language at what cost in which jurisdiction. The number and residence patterns of the speakers are bound to have a big influence on the answers to this question, see Wickström (2021). **Korpics in this issue** also examines how changes in minority language status are reflected in statistical demographic data on language use and shows that granting official status to a minority language can have a positive effect on the number of active speakers. In some cases, implementing official status might be the most sensible policy; in other cases, this could mean promoting educational programs, or a combination of these two. Redrawing jurisdictional borders might have a strong influence; see Wickström (2020). **Korpics in this issue** presents cases where the structure of administrative units within a state plays an important part in both minority language survival and extinction. For some languages, like Rromani ćhib or the various Retoroman/Ladin varieties, a big obstacle to stronger vitality is the existence of competing norms. The importance of a stable norm for language vitality is a central theme in the paper by **Daniel in this issue**.

1.2.3 *Dynamics*

In addition, the dynamics of the issue may not be neglected. This was observed by Grin (1992, 1993), who argues that certain "thresholds" in the visibility of a language in the linguistic landscape have to be reached if the use of the language (in various domains), seen as a dynamic process, is to increase. A case-study of the visibility of Asturian in the linguistic landscape is provided by **Gubitosi & Medina González in this issue.**

  A dynamic analysis is much more complex, however, than what these observations suggest. Visibility, like status, is a so-called state variable[8] (or a good with a protracted impact) and is but one dynamic variable; others act more or less instantaneously, and, in many situations, these types of variables interact and are at work at the same time, but at different speeds. Some processes promote the vitality of the language, while others affect it negatively; which process dominates significantly depends on their relative speed and the present vitality of the language. Assume that the incentive to learn and use a small endangered language depends on the number of active speakers and the status of the language. The higher the status and the larger the community, the more inclined individuals are to use the language. Status-increasing actions by government positively influence the size of the community. The size of the community can, in this way, be kept at a certain level. However, it is important to pay attention to how quickly such incentives influence individual behavior. If the effect of the status-increasing policy is too slow, it is to be feared that through the effect due to the low number of active

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8. Not to be confused with a "static variable".

speakers, this number will already have decreased too much by the time the status-promoting measures take effect, and the language might not be in use anymore. These dynamics complicate the picture considerably. A review of this problem can be found in Templin & Wickström (2024).

1.2.4   *Implementation*

An official policy, as reflected in laws and decrees, might grant many rights to the users of minority languages. However, this requires that the rules be implemented. In the opposite case, if the law is basically ignored and minority speakers are practically forced to use the majority language and *de facto* punished for using their own language, this, of course, strongly reduces the vitality of the minority language. Furthermore, besides the coercive function, the law also triggers a norm-setting effect by defining values and affecting public opinion and social attitudes. The entrenchment of the view that language diversity is a value in itself reinforces respect and support for minority languages and enhances language vitality. The consistent application of the law plays a decisive role in this creation of norms, and strongly contributes to language vitality. Not only are non-enforced and under-enforced rules of little practical value, but they also undermine the law's message that language diversity is a societal value to be respected and fostered. The failure to reinforce social appreciation undermines the sustainability of language vitality. **Nagy in this issue** provides numerous examples from the European Union of how authorities ignore or misinterpret the legal rights of minorities.[9] Such policies often play to political parties and constituents with populist tendencies, undermining the vitality of the minority languages by reducing their visibility and status. Moreover, this erodes minorities' satisfaction with state authorities, which in turn can have serious consequences for the social cohesion of the state, see Liu et al. (2015).

In Section 2, we discuss the different properties of language-related goods and their relationship to the costs of language policy; we combine this with the characteristics of the minority communities to be able to analyze the *per capita* costs of policy measures. The influence of dynamics is analyzed in Section 3, and in Section 4 the conclusions of the previous sections are brought together to enable an analysis of the properties of a sensible language policy for the (re)vitalization of minority languages. Section 4 closes our analysis.

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9.   One of the authors of this introduction could from his own experience add many examples of Norwegian authorities bluntly ignoring the rules in the Norwegian language law in communicating with their clients.

2 Costs and effects of language policy

A language-policy measure is in principle not different from most other policy measures. Policy measures are put in place to achieve certain goals; this, however, requires financial and other limited resources. The purpose, or goal, can be anything from building a bridge, to preventing an epidemic, or encouraging more people to speak Cherokee. In most cases, several measures aim at the same goal more or less effectively, entailing different costs. In this section, we analyze the cost structure of measures to improve the vitality of a language, *i.e.*, increasing the use of the language in different domains.[10] In Section 1, we mentioned measures such as establishing language standards through corpus planning, increasing the visibility of a language with the help of bilingual street signs or using it in official publications, or directly increasing the number of (potential) speakers through acquisition planning. To this we can add an increase in the instrumental value of the language through providing various services in the language. All these measures and many more can be assumed to have a positive effect on the vitality of the language, that is, of reaching the goals which these measures are intended to achieve. These measures come with expenses that can vary both in structure and size. This is the topic of this section.

2.1 *Types of goods*

Assume that a language-policy measure provides a language-related good. Bilingual street signs and outpatient nursing in different languages are two such goods that are very different in kind. For the non-dynamic discussion of language vitality, it makes sense to classify goods along two dimensions, namely, spatiality and rivalry.[11] Spatiality describes the extent to which the consumption of a good is tied to a given location and rivalry the extent to which its consumption can be associated with specific individuals.[12] Bilingual street signs are a good example of a good that is non-rival and spatial. Its usefulness to a given individual is independent of how many individuals benefit from the

10. For a detailed discussion of the character of language-related goods, see Wickström et al. (2018).

11. For dynamic aspects of the analysis, see Section 3.

12. In the classical discussion of "public" or "collective" goods, non-rivalry – or joint consumption – is one of the characteristics employed to describe such goods. A non-rival good is available in the same amount to to everyone; common examples are light houses, national defense, or – negatively – global warming. A rival good, on the other hand, can be consumed by only one individual, for instance a glass of wine. There are a number of intermediate cases, like congestion goods: the enjoyment of being in a swimming-pool might strongly depend on how many other people are in it at the same time. For further discussion, the reader is referred to Wickström & Gazzola (2024).

signs. At the same time, they are only useful if the individual finds himself or herself in a location where such signs are present. Similarly, publishing a public decree on a website or in some official journal in a given language is non-rival and non-spatial. Outpatient nursing is both rival and spatial, and answering individual queries on the Internet in the same language as the question is rival and non-spatial. One can also easily come up with various intermediary types of goods.

2.2   *Cost structure*

The type of good determines the connection between the costs of a policy measure and the number of beneficiaries, along with the distribution of the places where they reside. If the language-related good emerging from a policy measure is rival and spatial, the costs of the measure are bound to increase as the minority population increases as well as with the size of the area where the users of the language live. On the other hand, if the language-related good is non-rival and non-spatial, neither the size of the beneficiary population nor the size of the inhabited area will influence the costs. Specifying the costs c in relation with the number of beneficiaries n and the size of the area of application a, the costs $c(n, a)$ would be a constant in the case of non-rival and non-spatial goods, but in general they would be increasing with both variables n and a if the goods are at least to some extent rival and spatial. Changes in the rate of increase of costs as the other variables increase would depend on the degree of rivalry and spatiality respectively, and the larger the variables n and a, the slower the increase in costs owing to the increasing value of these two variables. Take the example of providing a theater performing in a minority language. To hire ensembles and build two theaters with a capacity of 500 visitors would cost much more than what one theater with a capacity of 1000 people would cost. The same thing would hold whenever there are set-up (or fixed) costs, for instance schools in a minority language; here the set-up of a school board, production of learning materials etc. are largely independent of numbers and space.

2.3   *Characteristics of linguistic minorities and costs*

Linguistic minorities vary along many dimensions: numerical size, social status, residential patterns, cultural status, economic status etc. Here, we will focus on numerical size and residential patterns. Of course, this does not imply that the other factors are unimportant; on the contrary, the other factors can in many cases be the dominant ones. The status of the language among the speakers is a crucial variable explaining the long-run survival of the language, see Wickström (2005), Templin et al. (2016), or Templin & Wickström (2024). See also Grin (1992) who stresses the

importance of status for the vitality of a language. The possibility of the long-term survival of a minority language in these studies depends on the instrumental value of the language as a means of communication and on its intrinsic value to the speakers as a carrier of identity; this pride in the culture tied to the language is reflected in the "status" of the idiom. An implicit assumption in this analysis is that the various policy measures positively influence the status of the language, thereby increasing its vitality. Assuming that the effect on the average speaker of a certain measure should be the same independently of the characteristics of the community, the costs will vary considerably between communities depending on the type of language-related good created by the policy measure. The results are summarized in Table 1; see also Wickström (2021).

Table 1: Comparison of budgets needed in different types of minority communities for given types of policy measures
Types of minorities: S= small, L= large, C=concentrated, D= dispersed; hence, B_{SC} is the budget for a small concentrated minority etc.

Type of measure	Size of budget needed for different types of minorities
rival & spatial	$B_{SC} < B_{SD} < B_{LD}$
	$B_{SC} < B_{LC} < B_{LD}$
rival & non-spatial	$B_{SC} = B_{SD} < B_{LC} = B_{LD}$
non-rival & spatial	$B_{SC} = B_{LC} < B_{SD} = B_{LD}$
non-rival & non-spatial	$B_{SC} = B_{LC} = B_{SD} = B_{LD}$

2.3.1 *Rival and spatial measures*

The costs of a certain impact on each individual in the minority, therefore, depend on the number of beneficiaries and their residential pattern. In the case of perfect rivalry, every additional individual at the same location entails the same additional costs; a *per capita* effect of a given size will cause *per capita* costs that are independent of the size of the minority, but increase with the size of the area concerned. Outpatient nursing in the minority language is an example.[13] The policy would need less resources for a small concentrated minority than for a larger, more spread out one.

2.3.2 *Non-rival and non-spatial measure*

In this case, costs are independent of both numerical size and residential patterns of the beneficiaries. For a constant size of the *per capita* effect, the *per capita* costs would

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13. Of course, one has to subtract the costs saved, since less outpatient nursing would be needed in the majority language.

decrease with the size of the minority and be unaffected by the residential pattern. In order to reach every individual, the policy would consume the same amount of resources for all types of minorities. The online publication of official documents, such as laws and decrees in the minority language, is an example.

2.3.3   *Rival and non-spatial measures*

Costs increase with numerical size, but they are independent of residential patterns. *Per capita* costs, causing constantly sized *per capita* effects, are constant. The internal revenue service responding to specific questions on individual tax returns per email would be an example. A policy measure with a given individual effect would use less resources for a small community than for a large one irrespective of residential patterns.

2.3.4   *Non-rival and spatial measures*

Street signs in a minority language are a typical example. In order to achieve the same effect *per capita*, the *per capita* costs would decrease with the numerical size of the minority, but would increase with the size of the area of implementation. The budget needed is lowest for concentrated minorities irrespective of their numerical size.

2.4   *Cost structure, fiscal federalism, autonomy, and the principles of territoriality and personality*

The geographical extension of jurisdictions is also a possible policy variable. Fiscal federalism is an important topic in economics. It studies how federal structures should be designed in order to minimize so-called market failures or negative externalities; see Wickström & Gazzola (2024). Simply put, the net benefits of some polices might increase with the size of a jurisdiction up to certain point and then decline. In such cases, it makes sense to limit the size of the jurisdiction.[14] This analysis is easily extended to language policy. See, for instance, Grin & Vaillancourt (2002). Limiting language policies to a certain area is known as applying the territoriality principle as opposed to applying it to every potential beneficiary in a country, which is known as the personality principle. The efficiency consequences of the two principles are closely related to the cost structure discussed above.

It is clear that non-spatial measures are most effective if applied to the whole country. The costs are independent of the size of the jurisdiction and the benefits increase with the number of beneficiaries. Here, the personality principle is the only sensible one. For spatial policy measures, the issue is much more complex. The geographical

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14. Boadway & Shah (2009) is an accessible textbook on fiscal federalism.

concentration of the minority is of crucial importance. Whether a measure is cost-effective or not in a jurisdiction depends on the absolute size of the minority in the jurisdiction as well as its geographical density, as demonstrated in Wickström (2020). As the size of a jurisdiction is increased, the number of beneficiaries of a policy measure in the jurisdiction is also increased (or, at least, not decreased). At the same time, if the minority is geographically concentrated, the geographical density of the beneficiaries decreases beyond a certain point. In this way, one can determine an optimal size for a jurisdiction from a cost-effectiveness point of view. That is, the territoriality principle should be applied, and the territory should be of a certain size. The most effective measures will be spatial. If the minority is less concentrated, it might not make any sense to adhere to the territorial principle, and the sensible policy might consist of non-spatial policy measures employed in the entire country.

The minorities discussed in the contributions of **Korpics and Gubitosi & Medina González in this issue** are generally geographically highly concentrated ones, and the territorial principle should be applied. From applying the territoriality principle to the introduction of political autonomy, the distance is not a very long one. The importance of autonomy for the linguistic vitality is also discussed by **Korpics in this issue**.

3   Dynamics of linguistic behavior

In a dynamic analysis the types of goods have to be extended further into durable goods and immediate ones. The status of a language, for instance, is what the economist calls a state variable, as opposed to a flow variable. The effect of a state variable is felt at each instant of time, but drawn out over a long time period. Contrary to common misunderstandings, it does not mean that the effect is delayed or lagged in any way. The size of the status is built up slowly, fed by some continuously undertaken activity, and, if not nurtured, it slowly decays by itself. The prime example of a state variable is the capital stock of a company or business. It is constantly used productively, increases through investment, and its value in production decreases through depreciation. In everyday language, one can call a state variable durable (in the sense "drawn out over time"). A flow variable, on the other hand, has an immediate effect. To stay with the production example, the inputs of sugar and milk in the production of milk chocolate are flow variables.

The status of a language then has such a protracted effect on the linguistic behavior of individuals, whereas other variables like the teaching of the native tongue or promoting the instrumental value of the language generally show a much more immediate effect. Some policy measures contribute mainly to the status of the language and hence operate more slowly than the more immediate measures. Therefore, we face

a trade-off between a myopic policy with rapid immediate effects and a hyperopic policy with slower protracted effects. In the long run, the building of status might be the more important policy, but policy makers might favor short-term outcomes and, consequently, put more stress on policies with a more rapid effect like various acquisition planning measures than on slow-working status-building policy measures that secure the long-run vitality of the language (Wickström 2023b).

Compare the discussion in **Nagy in this issue**. Here, it is argued that the disregard of formal legal rules in the implementation of language rights by the policy makers in the European Union negatively effects the status of minority languages inside and outside their respective communities. In the long run, this can be a very damaging policy for the vitality of Europe's minority languages that cannot be compensated for by increased acquisition planning or similar short-run measures. Optimal status-building policy,[15] however, can be a rather complicated matter, both conceptually and theoretically (see Templin et al., 2016 and Wickström, 2023b).

Similar arguments can also apply to corpus planning. If the structure or vocabulary of a language changes "too fast" (for instance through borrowing) the language might become "unstable" and lose its vitality; see the discussion in **Daniel in this issue** or in Wickström (2012). At the level of implementation, it might be unrealistic to expect an optimal policy to be politically feasible, and a sub-optimal policy might be politically more attractive, further complicating the issue. **Daniel in this issue** in section 6, for instance, focuses on how corpus planning can be a politically opportune policy in the interest of suppressed minorities.

4   Choice of policy measures

From the analysis above it is clear that no single policy fits every minority optimally. With a given budget, the policy measures have to be adjusted to each type of minority to be as effective as possible. For a small minority spread over a wide territory, measures like using the language in official publications, on banknotes, or in the names of public institutions increase its status, which affects each speaker in more or less the same way for a given budget, and might be more cost-effective than providing extensive social services in the language with a budget depending both on the number of beneficiaries and their residential pattern. For a small concentrated minority, the opposite might be true. In the end, the impact of policy measures on the vitality of a language would need to be compared with the costs of the measures for the type of minority at hand in

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15. What is "optimal", is of course subjective and determined by the policy maker. The important issue is that the policy is internally consistent.

order to find the most cost-effective policy.[16] It is only in this way that, through careful matching, the most beneficial policy for a given budget can be identified. Ascertaining the impact of a policy measure on language use by individuals and, consequently, its effect on the vitality of the language is ultimately an empirical issue.

On the constitutional level, the federal structure of a country and the borders between jurisdictions also play an important role in the matter. If the costs of policy measures increase with the size of the territory of implementation and given that the territory of implementation is the jurisdiction, the size of the jurisdictions will determine the costs of the language policy. However, the costs will also depend on the residential patterns of the minority members. In jurisdictions where the minority is strongly concentrated in parts of the territory of the jurisdiction and with policies implemented everywhere, the policy maker might be more inclined to opt for non-spatial measures even if spatial measures would be more effective if limited to the part of the territory occupied by the minority.

A similar effect can occur, of course, if a minority is distributed over neighboring jurisdictions with strong concentrations in certain areas within each jurisdiction, or if a minority is split up between two adjacent jurisdictions. In the latter case, the policy maker might select too many rival measures instead of non-rival ones which would be optimal if the jurisdictions were joined. That is, the federal structure of a country can often be a very inefficient organization with respect to the implementation of minority rights and lead to an inefficient application of both spatial and rival measures. This situation could easily be improved through a redrawing of the jurisdictional borders.

Korpics in this issue argues that combining language-policy measures with jurisdictional structures in areas hosting minority groups and using the paradigm of regionalism might make the policy more effective, leaving the implementation of language-policy measures to sub-national administrative units. This way, in attempting to optimize policy measures, both the spatiality and rivalry aspects of the policy measures for small regional minorities within larger minorities can more easily be accounted for, to the benefit of individuals in these doubly marginalized groups.[17]

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16. Economists generally distinguish between cost-effectiveness and efficiency. Cost-effectiveness – or cost-efficiency – basically means that a certain effect (result) is achieved at the lowest possible costs or – the so called dual problem – the highest effect (if it is quantifiable, like teaching a language to a certain number of people) is reached with a given budget. The more general term efficiency signifies the among the possible effects a combination is reached that best corresponds to the preferences of the involved individuals. In practical implementation in the former case, one talks about cost-effectiveness analysis and in the latter about cost-benefit analysis.

17. For a further discussion and an example from Slovakia, see Wickström (2020).

5   A brief summary of the other contributions to this issue

The other four contributions to this issue focus on different aspects, positively or negatively affecting the vitality of languages: administrative decentralization, stability and standardization, legal marginalization, and visibility in the linguistic landscape.

Fanni Korpics explores the effects of jurisdictional and administrative decentralization on fragile minority languages, which can be called "minorities within a minority". She offers a comparative analysis of three cases (from Spain, Italy and France) where in an administrative or autonomous region a minority lives in substantial numbers along with other smaller minority communities. Her focus is on the position and vitality of these small minority languages and on the regional legislation affecting them.

Rhianwen Daniel examines the role of linguistic purism for language vitality from various angles. She reflects upon J.G. Herder's thoughts on the relation between nation, state, and linguistic identity. Daniel concludes by arguing that resisting excessive translingual borrowing, hence adhering to language purism, is a necessary tool for cultural survival and the prevention of language endangerment and extinction.

Csongor Nagy's article highlights how European institutions prioritize the idea of a nation-state based on a single ethnicity and language. Minority languages are merely tolerated, and language rights are often conceived as a privilege. This attitude contradicts the treatment of other protected identities such as religion, gender, and sexual orientation, and contributes to the decline of the vitality of minority languages. The paper emphasizes the urgent need for European institutions to establish clear values and send a strong message that – using Nagy's term – language shaming[18] is unacceptable.

Patricia Gubitosi and Paola Medina González make a case study of the three main cities of the Principality of Asturias in North-Eastern Spain. It is based on the visibility of Asturian and Spanish in the linguistic landscape as well as on a survey of people's attitudes towards the use of these languages. The data suggest a mismatch between language policy and language use in the region and a lack of prestige of the Asturian language.

6   Conclusions

The general conclusion is that in order to achieve the best result, one has to use a limited budget in an effective manner. This involves finding policy measures that fit the given situation. When it comes to increasing the vitality of a minority language, the relevant situation is determined by parameters characterizing the minority community, which

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18. The term is clearly defined in the essay.

in turn determine how individual speakers react to different incentives. Here, we have focused on two such parameters, the numerical size and the residential patterns of the members of the minority, and linked them to the properties of the language-related goods emerging from different language-policy measures. We have argued that this leads to an optimal language policy that is differentiated according to the structure of the minority under scrutiny. Considering other properties of the minority community such as religion, traditional self-governing structures, or inherited economic and social activities, can only strengthen this conclusion. The study of the effects of language policy, hence, must be the study of many individual cases. It is only after we have understood such individual cases that we are in a position to draw some general conclusions.

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References

Blanke, D. (1985). *Internationale Plansprachen: Eine Einführung*. Akademie-Verlag.

Boadway, R., & Shah, A. (2009). *Fiscal federalism: Principles and practices of multiorder governance*. Cambridge University Press.

Cenoz, J. (2008). Achievements and challenges in bilingual and multilingual education in the Basque Country. *AILA Review*, *21*, 13–30.
https://doi.org/10.1075/aila.21.03cen

Eberhard, D. M., Simmons, G. F., & Fennig, Ch. D. (Editors). (2022). *Ethnologue: Languages of the world* (25th edition). SIL International.
www.ethnologue.com

Fishman, J. A. (1991). *Reversing language shift: Theoretical and empirical foundations of assistance to threatened languages*. Multilingual Matters Ltd.

Gazzola, M., Hahm, S., & Wickström, B.-A. (2018). Sind Fremdsprachenkenntnisse mit dem Einkommen und der Beschäftigung verbunden? Empirische Evidenz aus Deutschland und aus der Welt. In C. R. Brosch & S. Fiedler (Editors), *Jahrbuch der Gesellschaft für Interlinguistik 2018* (Pages 55–78). Leipziger Universitätsverlag.

Ginsburgh, V. A., & Prieto-Rodriguez, J. (2011). Returns to foreign languages of native workers in the EU. *Industrial and Labor Relations Review*, *64*(3), 599–618. https://doi.org/10.1177/001979391106400309

Grin, F. (1992). Towards a threshold theory of minority language survival. *Kyklos*, *45*(1), 69–97. https://doi.org/10.1111/j.1467-6435.1992.tb02108.x

Grin, F. (1993). The relevance of thresholds in language shift and reverse language shift: A theoretical examination. *Journal of Multilingual and Multicultural Development*, *14*, 375–392.

Grin, F. (2016). Challenges of minority languages. In V. A. Ginsburgh & S. Weber (Editors), *The Palgrave handbook of economics and language* (Pages 616–658). Palgrave Macmillan.

Grin, F., & Vaillancourt, F. (2002). Minority self-governance in economic perspective. In K. Gál (Editor), *Minority governance in Europe* (Pages 73–86). LGI Books.

Harshav, B. (1993). *Language in time of revolution*. University of California Press.

Hinton, L., Huss, L., & Roche, G. (Editors). (2018). *The Routledge handbook of language revitalization*. Routledge.

Hüning, M., Vogl, U., & Moliner, O. (Editors). (2012). *Standard languages and multilingualism in European history*. John Benjamins. https://doi.org/10.1075/mdm.1

Liu, A. H., Brown, D. S., & Dunn, M. H. (2015). Minority language recognition and trust: Evidence from twenty-five democracies. *Taiwan Journal of Democracy*, *11*, 137–162.

Liwiński, J. (2019). The wage premium from foreign language skills. *Empirica*, *46*(4), 691–711. https://doi.org/10.1007/s10663-019-09459-0

Marten, H. F. (2016). *Sprach(en)politik: Eine Einführung*. Narr.

Reshef, Y. (2013). Revival of Hebrew: Grammatical structure and lexicon. In G. Khan (Editor), *Encyclopedia of Hebrew language and linguistics* (Pages 397–405, Volume 3). Brill.

Templin, T., Seidl, A., Wickström, B.-A., & Feichtinger, G. (2016). Optimal language policy for the preservation of a minority language. *Mathematical Social Sciences*, *81*, 8–21. https://doi.org/10.1016/j.mathsocsci.2016.03.006

Templin, T., & Wickström, B.-A. (2024). Language competition models. In M. Gazzola, F. Grin, L. Cardinal, & K. Heugh (Editors), *The Routledge handbook of language policy and planning* (Pages 66–86). Routledge. https://doi.org//10.4324/9780429448843-5

UNESCO. (2011). *UNESCO's language vitality and endangerment methodological guideline: Review of application and feedback since 2003*. United Nations Educational, Scientific and Cultural Organization.

Wexler, P. (1990). *The schizoid nature of Modern Hebrew: A Slavic language in search of a Semitic past*. Harrassowitz.

Wickström, B.-A. (2005). Can bilingualism be dynamically stable? A simple model of language choice. *Rationality and Society*, *17*(1), 81–115. https://doi.org/10.1177/1043463105051776

Wickström, B.-A. (2012). Language as a renewable resource: Import, dissipation, and absorption of innovations. *International Journal of Computational Linguistics*, *3*(1), 32–52.

Wickström, B.-A. (2020). On the political economy of minority rights. Three ways to manipulate a minority: Goals, rules, and border poles. *European Journal of Political Economy*, *64*, 101894 (16 pages).
https://doi.org/10.1016/j.ejpoleco.2020.101894

Wickström, B.-A. (2021). Dynamics, costs and the survival of minorities: Optimal language policies for increasing the vitality of minority languages. *Minorités linguistiques et société / Linguistic Minorities and Society*, *17*, 221–239.
https://doi.org/10.7202/1084706ar

Wickström, B.-A. (2023b). Optimal and politically opportune language policies for the vitality of minority languages. *Rationality and society*, *35*(4).

Wickström, B.-A., & Gazzola, M. (2024). The economics of language policy and planning. In M. Gazzola, F. Grin, L. Cardinal, & K. Heugh (Editors), *The Routledge handbook of language policy and planning* (Pages 158–171). Routledge.
https://doi.org//10.4324/9780429448843-12

Wickström, B.-A., Templin, T., & Gazzola, M. (2018). An economics approach to language policy and linguistic justice. In M. Gazzola, T. Templin, & B.-A. Wickström (Editors), *Language policy and linguistic justice: Economic, philosophical and sociolinguistic approaches* (Pages 3–64). Springer.
https://doi.org/10,1007/978-3-319-75263-1_1

Kivonat

Sok kis nyelvet fenyegeti a kihalás veszélye. Ennek a folyamatnak a megállítása és visszafordítása fontos téma a szociolingvisztikai szakirodalomban. A nyelvek revitalizálása mellett van néhány példa az „új" nyelvek vitalizálására (használatba vételére) is, mint például az ivrit (modern héber) bevezetése Palesztinában/Izraelben. Általánosságban elmondható, hogy egy nyelv használatához, bármilyen nyelvről legyen is szó, a használóknak vonzónak és hasznosnak kell találniuk azt. Legalább két tényezőnek van fontos szerepe ebben: hogy a nyelv használói milyen értéket tulajdonítanak a nyelvnek mint kommunikációs eszköznek, illetve mint a kultúra és identitás hordozójának. Feltételezhető, hogy ezek a tényezők nyelvpolitikai intézkedésekkel befolyásolhatók.

A különböző intézkedéseknek a nyelv vitalitására gyakorolt hatása empirikus kérdés. Mindazonáltal levonható néhány általános következtetés arra vonatkozóan, hogy ha a döntéshozó pénzügyi forrásai korlátozottak, mely intézkedések mely nyelvek vitalizálására vagy revitalizálására alkalmasak. A különszám e bevezető szövegében a költséghatékonysági elemzés gondolatait használjuk az alkalmazott szakpolitikai intézkedések típusai és az érintett nyelvi közösségek jellemzői – mint például a méret, a társadalmi státusz és a lakóhelyi minták – közötti kapcsolat megvitatására. A kisebbségi nyelven elhelyezett utcanévtáblák költséghatékonysági aránya például magasabb lehet egy egész országban elterjedt közösség esetében, mint egy azonos méretű közösségnél, amely egy földrajzilag kisebb közigazgatási területre koncentrálódik. Másrészt egy ország törvényei és rendeletei szövegének kisebbségi nyelven történő közzétételére vonatkozó döntés megközelítőleg azonos hatással lesz a két kisebbségtípusra.

Az LPLP jelen különszámának írásai a különböző nyelvi kisebbségekre vonatkozó különféle szakpolitikai intézkedéseket mutatják be és értékelik, valamint e tanulmány fő kérdéseinek fontos aspektusait szemléltetik.

Resumo

Multaj malgrandaj lingvoj estas en danĝero de malapero. Kiel haltigi kaj inversigi tiun procezon estas grava temo en la soci-lingvistika literaturo. Aldone al la revigligo de lingvoj, oni trovas kelkajn ekzemplojn de vigligo (vivigo) de «novaj» lingvoj, kiel ekzemple la enkonduko de *Ivrit* (la moderna hebrea) en Palestinio/Israelo.

Ĝenerale, por la uzado de iu ajn lingvo gravas ke la uzantoj trovas ĝin alloga kaj uzebla. Almenaŭ du ecoj gravas ĉi tie: la sentata valoro por la uzantoj de la lingvo kaj kiel komunikilo kaj kiel portanto de kulturo kaj identeco. Ni supozas, ke eblas influi tiujn ecojn per lingvopolitikaj instrumentoj.

La efiko de variaj lingvopolitikaj eroj sur la vigleco de la lingvo estas empiria afero. Tamen eblas konjekti iom pri kiel senchavaj por la revigligo de malsamaj lingvoj malsimilaj politikeroj estas, kiam la financaj rimedoj por la lingvopolitiko estas limigitaj. En la enkonduka teksto de tiu ĉi temo-kajero ni uzas la ĝeneralajn ideojn de kostefikecanalizo por priparoli la ligon inter la efiko de uzataj politikeroj kaj la ecoj de la studitaj lingvokomunumoj, kiel grandeco, socia statuso aŭ spaca loĝaranĝo de la uzantoj de la lingvo. La rilato inter la kostoj de stratsignoj en malplimulta lingvo kaj la efiko por la viglo de la lingvo ekzemple verŝajne pli altas en komunumo disvatigita super tuta stato ol en same granda komunumo koncentrita en unu space limigita parto de la lando. Aliflanke, decido publikigi la tekston de leĝoj aŭ dekretoj de la lando en minoritata lingvo verŝajne havus la saman efikon en ambaŭ komunumoj.

La artikoloj en tiu ĉi temokajero de LPLP alparolas kaj taksas malsimilajn tipojn de lingvopolitikaj intervenoj en variaj lingvokomunuoj, tiel ilustrante gravajn aspektojn de la principaj argumentoj de tiu ĉi enkonduka artikolo.

Address for correspondence

Bengt-Arne Wickström
Andrássy-Universität
Pollack Mihály tér 3
HU-1088 Budapest

bengt-arne.wickstroem@andrassyuni.hu
ⓘD https://orcid.org/0000-0003-0363-8416

Co-author information

Noémi Nagy
Nemzeti Közszolgálati Egyetem
Ludovika tér 2
HU-1083 Budapest

nagynoemi@uni-nke.hu

https://orcid.org/0000-0003-2870-3456

Anneliese Rieger-Roschitz
Andrássy-Universität
Pollack Mihály tér 3
HU-1088 Budapest

anneliese.rieger@andrassyuni.hu
https://orcid.org/0000-0002-6748-2337

Balázs Vizi
Nemzeti Közszolgálati Egyetem
Ludovika tér 2
HU-1083 Budapest

vizi.balazs@uni-nke.hu
https://orcid.org/0000-0003-0764-088X

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